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| EXAMINER |
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CUMBERLEDGE, JERRY L

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| ART UNIT | PAPER NUMBER |
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3733

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 03/02/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/695,068

Applicant(s)

YOUNG ET AL.

Examiner

Jerry Cumberledge

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 12-18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Assaker (US Pat. 5,620,444).

Assaker discloses an interconnection apparatus for securing a pair of elongate members, said apparatus comprising a solid (column 6, lines 23-24) shaft (Fig. 15, ref. 25); a first hook (Fig. 15, ref. 29) including a first internal surface having a curved portion (the surface inside the hooked region) configured to at least partly encircle a first one of the pair of non-parallel, elongate members; and a second hook (Fig. 15, ref. 33) including a first end (Fig. 15, ref. 33) unitary to the shaft at a position axially displaced from the first hook, said second hook terminating at a second end (end near ref. 34) spaced laterally from the shaft and comprising a second internal surface (the surface inside the hooked region) having a curved portion (Fig. 17) including a ridge (Fig. 10, ref. 21) extending along said curved portion in a direction from the first end to the second end. The second hook can be considered to be connected to the shaft at a position axially displaced from the first hook, since it is connected to the shaft at a distance from the first hook, along the longitudinal axis of the shaft.

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Assaker discloses an interconnection apparatus for securing a pair of elongate members, said apparatus comprising: a solid (column 6, lines 23-24) shaft (Fig. 15, ref. 25); a first hook (Fig. 15, ref. 29) including a first internal surface (the surface inside the hooked region) having a curved portion (Fig. 15) configured to at least partly encircle a first one of the pair of non-parallel, elongate members; and a second hook (Fig. 15, ref. 33) including a first end (area near ref. 31) unitary to the shaft at a position axially displaced from the first hook, said second hook terminating at a second end (end near ref. 34) spaced laterally from the shaft and comprising a second internal surface (the surface inside the hooked region) wherein the second internal surface curves both in a first direction from the shaft to the second end (Fig. 17) and in a second direction oblique to the first direction (Fig. 10, ref. 21). The internal surface curves in a second direction substantially orthogonal to the first direction. The internal surface curves in a second direction at an acute angle to the first direction. The internal surface curves in a second direction at an obtuse angle to the first direction. One can trace curves over the ridge (Fig. 10, ref. 21) that can be considered to be orthogonal to the first direction, acute to the first direction and obtuse to the first direction.

The apparatus further comprises a first spinal rod (Fig. 17, ref. 42) secured to the first rod connector and a second spinal rod (Fig. 17, ref. 42) secured to the second rod connector, wherein the first spinal rod and the second spinal rod are positioned to lie non-parallel to each other. Since the rods are being secured by a hook that does not completely encircle the rods, the rods can still be angled while they are being held in place by the hooks. The first spinal rod and the second spinal rod are positioned to not

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lie in the same plane. The apparatus of Fig. 15 would cause the rods to lie in different planes, since the hooks are different lengths. The first hook includes a first internal surface that curves both in a first direction and in a second direction oblique to the first direction. The hook curves along the curve of ref. 22 in Fig. 10, curving back towards the shaft, and also curves along ridge 21, across the hook. One can trace a curve across the surface of the ridge that is oblique to the curve of ref. 22 in Fig. 10.

Assaker further discloses an interconnection apparatus for securing an elongate member, said apparatus comprising: a shaft (Fig. 15, ref. 25); a first hook (Fig. 15, ref. 29) including a first end (end near ref. 31) connected to the shaft and terminating at a second end (end at the bottom of the hook) spaced laterally from the shaft, and an internal surface (surface in the hook) configured to engage the elongate member, wherein the internal surface curves both in a first direction from the shaft to the second end (Fig. 15) and in a direction oblique to the first direction (Fig. 10, ref. 21).

The apparatus of Assaker is capable of performing a method of treating a spinal deformity, said method comprising; providing an apparatus according to claim 1; securing a first spinal rod and a second spinal rod to two or more vertebrae; interconnecting the first spinal rod and the second spinal rod by securing the first spinal rod to the first hook and the second spinal rod to the second hook (column 6, lines 25-28).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (US Pat. 5,980,523) in view of Assaker (US Pat. 5,620,444).

Jackson discloses an interconnection apparatus for securing a pair of elongate members, said apparatus comprising a solid shaft (Fig. 5 below); a first hook (Fig. 5 below) including a first internal surface (Fig. 5 below) having a curved portion (Fig. 5, ref. 69) configured to at least partly encircle a first one of the pair of non-parallel, elongate members; and a second hook (Fig. 5 below) including a first end (Fig. 5 below) unitary with the shaft at a position axially displaced from the first hook (Fig. 5), said second hook terminating at a second end (Fig. 5 below) spaced laterally from the shaft and comprising a second internal surface (Fig. 5 below) having a curved portion (Fig. 5, ref. 23). The first end, the second end of the second hook, and the shaft define a first plane and the first hook extends laterally from the shaft along the first plane. Since the first hook is not permanently attached to the shaft, it can be angled with respect to the second hook. The shaft has a round or oval cross-sectional profile. Near ref. 61 in Fig. 5, the shaft has a round cross-sectional profile. The shaft defines a substantially planar plate (Fig. 1, ref. 10). The shaft is curved (Fig. 1., ref 33). The apparatus further comprises a first threaded aperture (Fig. 5, ref. 73) through said shaft and said curved portion of the first hook. The first hook is secured to the first spinal rod and the second

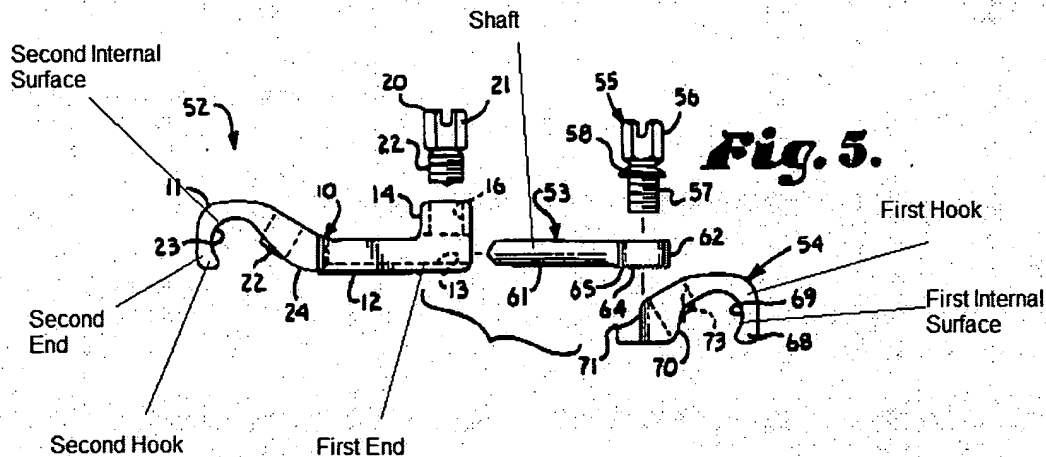
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hook is secured to a second spinal rod, wherein the first spinal rod and the second spinal rod are positioned to lie non-parallel to each other (Fig. 24). The first spinal rod and the second spinal rod are positioned to not lie in the same plane (Fig. 25).

The apparatus further comprises a threaded aperture (Fig. 4, ref. 27) (column 5, lines 18-20) through said shaft; and a threaded fastener (Fig. 5, ref. 22) (column 5, lines 18-22) threadedly received within said aperture, wherein said aperture and said fastener are positioned to secure an elongate member within the second hook (column 5, lines 22-27).

Jackson further discloses an interconnection apparatus for securing a pair of elongate members, said apparatus comprising: a solid shaft (Fig. 5 below); a first hook (Fig. 5 below) including a first internal surface (Fig. 5 below) having a curved portion (Fig. 5, ref. 69) configured to at least partly encircle a first one of the pair of non-parallel, elongate members; and a second hook (Fig. 5 below) including a first end (Fig. 5 below) unitary with the shaft at a position axially displaced from the first hook (Fig. 5), said second hook terminating at a second end (Fig. 5 below) spaced laterally from the shaft and comprising a second internal surface (Fig. 5 below) wherein the second internal surface curves in a first direction from the shaft to the second end (Fig. 5, ref. 23). The apparatus further comprises a first spinal rod (Fig. 2, ref. 3) secured to the first rod connector and a second spinal rod (Fig. 2, ref. 2) secured to the second rod connector, wherein the first spinal rod and the second spinal rod are positioned to lie non-parallel to each other (Fig. 24). The first spinal rod and the second spinal rod are positioned to not

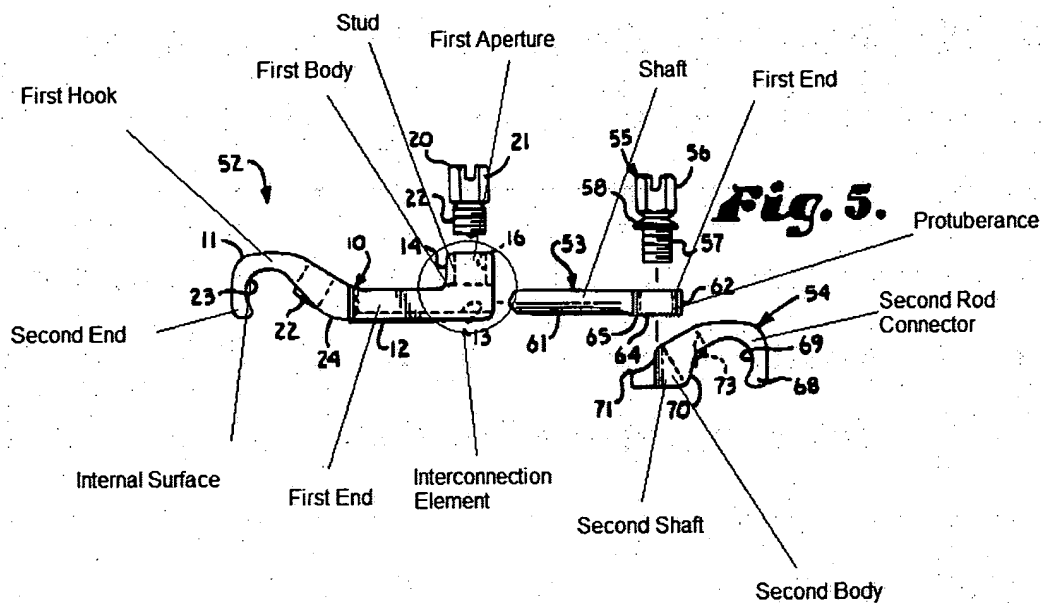
lie in the same plane (Fig. 25).



Jackson further discloses an interconnection apparatus for securing an elongate member, said apparatus comprising: a shaft (Fig. 5 below); a first hook (Fig. 5 below) including a first end connected to the shaft (Fig. 5 below) and terminating at a second end (Fig. 5, below) spaced laterally from the shaft, and an internal surface (Fig. 5) configured to engage the elongate member wherein the internal surface curves in a first direction from the shaft to the second end (Fig. 5, ref. 69). The apparatus further comprises an interconnection element (Fig. 5 below) including a first body (Fig. 5 below) having a first aperture (Fig. 5 below) formed therein and a stud (Fig. 5 below) extending from the body and wherein the shaft is received within the first aperture. The apparatus further comprises a second rod connector (Fig. 5 below) including a second shaft (Fig. 5 below) having a second body (Fig. 5 below) carried thereon, said second body having a second aperture (Fig. 7, the opening that end 62 is resting in) formed therein, said

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second aperture being capable of having the stud received therein; and a fastener (Fig. 5, ref. 21) configured to engage with the stud. The apparatus further comprises a first spinal rod secured to the first rod connector and a second spinal rod secured to the second rod connector, wherein the first spinal rod and the second spinal rod are positioned to lie non-parallel to each other (Fig. 24). The first spinal rod and the second spinal rod are positioned to not lie in the same plane (Fig. 25). The shaft terminates in a first end having a protuberance extending laterally therefrom (Fig. 5 below).



The apparatus of Jackson is capable of performing a method of treating a spinal deformity, said method comprising; securing a first spinal rod and a second spinal rod to two or more vertebrae; interconnecting the first spinal rod and the second spinal rod by

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securing the first spinal rod to the first hook and the second spinal rod to the second hook (column 4, lines 24-39).

Jackson discloses an interconnection apparatus for securing an elongate member said apparatus comprising: a shaft (Fig. 13, ref. 110), a first hook (Fig. 13, ref. 54) including a first end (Fig. 13, end near ref. 73) connected to the shaft (Fig. 13) and terminating at a second end (Fig. 13, end near ref. 68) spaced laterally from the shaft (Fig. 13) and an internal surface (Fig. 13, ref. 69) configured to engage the elongate member (Fig. 13, ref. 2) wherein the internal surface curves in a first direction from the shaft to the second end (Fig. 13). The apparatus further comprises an interconnection element (Figs. 13 and 14, ref. 103) including a first body (Fig. 14, ref. 136) having a first aperture (Fig. 14, ref. 138) formed therein and a stud (Fig. 14, ref. 135) extending from the body and wherein the shaft is received within the first aperture (Figs. 13 and 14, ref. 110 going into ref. 138). The first hook and the second hook are moveable with respect to the interconnection member, since the components can be disconnected (Fig. 14) and they can be moved with respect to each other. The stud is externally threaded (Fig. 14) (column 8, lines 5-8).

Jackson does not disclose the first and/or second hooks having a ridge or an internal surface having a second curve.

Assaker discloses first and/or second hooks (Fig. 10, ref 17) (column 5, lines 26-29) having a ridge (Fig. 10, ref. 21) or an internal surface having a second curve (Fig. 10, ref. 21) used for improved grasping of the vertebral lamina (column 5, lines 18-22). The internal surface curves in a second direction substantially orthogonal to the first

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direction. The internal surface curves in a second direction at an acute angle to the first direction. The internal surface curves in a second direction at an obtuse angle to the first direction. One can trace curves over the ridge (Fig. 10, ref. 21) that can be considered to be orthogonal to the first direction, acute to the first direction and obtuse to the first direction.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the interconnection apparatus of Jackson with the first and/or second hooks having a ridge or an internal surface having a second curve of Assaker, in order to allow the interconnection apparatus to not only grasp rods, but to also appropriately grasp a vertebra (Assaker, column 5, lines 18-22).

Regarding claims 10, 19, 20 and 27, Jackson in view of Assaker discloses the claimed invention except for the various components being formed as a one-piece unit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the device as a one piece unit, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Assaker (US Pat. 5,620,444).

Regarding claims 19 and 20, Assaker discloses the claimed invention except for the various components being formed as a one-piece unit. It would have been obvious

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to a person having ordinary skill in the art at the time the invention was made to have formed the device as a one piece unit, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 13 and 22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/695,067 in view of Assaker (US Pat. 5,620,444).

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Claim 1 of Application No. 10/695,067 discloses the claimed invention except for the internal surface with curves both in a first direction from the shaft to the second end and in a direction oblique to the first direction.

Assaker discloses an internal surface with curves both in a first direction from the shaft to the second end and in a direction oblique to the first direction (Fig. 10, ref. 21) (column 5, lines 18-22), used for improved grasping of the vertebral lamina (column 5, lines 18-22).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the interconnection apparatus of claim 1 of Application No. 10/695,067 with the internal surface with curves both in a first direction from the shaft to the second end and in a direction oblique to the first direction, in order to allow the interconnection apparatus to not only grasp rods, but to also appropriately grasp a vertebra (Assaker, column 5, lines 18-22).

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

Applicant's arguments filed 12/07/2006 have been fully considered but they are not persuasive.

With regards to the Applicant's argument that the shaft of Assaker is not solid, the examiner respectfully disagrees. The shaft can be full or tubular (column 6, lines 23-24).

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With regards to Applicant's argument that the second hook of Assaker is not unitary with the shaft, the Examiner respectfully disagrees. With regard to the hook and the shaft, it is noted that Assaker device comprises several parts, e.g. the hooks and the shaft, which are rigidly secured together as a single unit once the hooks are adjusted (column 6, lines 1-4), in the same manner that the other sliding portions are fixed to the shaft (column 5, lines 63-67) (column 6, lines 29-34). Therefore, the constituent parts are so combined as to constitute a unitary whole or structure. In re Larson, 144 USPQ 347 (CCPA 1965). Furthermore, to clarify the Examiner's position regarding the terms "formed as a one-piece unit" versus the term "unitary", the Examiner is interpreting "formed as a one-piece unit" to be synonymous with "monolithic" since the device is being *formed* as a single unit (i.e. it was constructed originally as a one-piece unit) and the device comprises only *one* piece. Regarding the term "unitary" the Examiner is treating this term as in the above paragraph, that this requires components of the device to be rigidly secured together as a single unit. The hooks of Assaker are unitary with the shaft once they are rigidly attached to the shaft through the use of a deforming force (column 5, lines 63-67) (column 6, lines 29-34).

With regards to Applicant's argument that the Assaker reference does not disclose an internal surface which curves in two directions, the Examiner respectfully disagrees. As stated in the previous Office Action, the second internal surface curves both in a first direction from the shaft to the second end (as shown in Fig. 17) and also curves in a second direction oblique to the first direction (Fig. 10, ref. 21). The first curve is the curve between the shaft and the end of the hook, the curve that forms the "hook".

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Reference 21 is used to refer to the second of the two curves of the entire internal surface, not to both curves. Reference 21 refers to the curve that is oblique to the curve that is formed by the first curve (the curve that forms the "hook" of the device). Thus, there are two curves along the internal surface of the device: the internal portion of the curve that forms the hook of the device (Fig. 17) and the second curve that is oblique to the first curve (Fig 10, ref. 21).

With regards to Applicant's arguments that the spinal rods are not parallel/ are located in different planes, it is noted that these aspects of the spinal rods is being recited functionally (e.g. "...the first spinal rod and the second spinal rod are positioned to lie non-parallel to each other)." It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

With regards to Applicant's argument that one of ordinary skill would not have considered the Jackson structures to be useful in grasping vertebrae, and therefore the motivation to combine the references would not have caused one of ordinary skill in the art at the time the invention was made to have combined the references, the Examiner respectfully disagrees. As can be seen from the Assaker reference, the idea of using a device as both a spinal rod connector (Assaker, Fig. 17) and using the same device to directly grasp a vertebra (Assaker, Fig. 1) was known at the time the invention was made. The device of Jackson, though being disclosed as a spinal rod connector, could also be used to directly grasp a vertebra, in a similar manner to the device of Assaker.

With regards to Applicant's argument that the spinal rod of Jackson would not fit snugly and correctly into the hook as modified by the Assaker reference, the Examiner respectfully disagrees. The rod would still fit snugly into the hook, since much of the surrounding hook would be engaging the rod. Since the rod would be inserted into the hook in the same manner as before, the longitudinal axis of the rod would still be perpendicular to the radius of the hook, and the rod would be "correctly" inserted into the hook.

With regards to Applicant's argument that the end of the second hook is not laterally spaced from the shaft, the Examiner respectfully disagrees. The end is to the left side of the shaft (see Fig. 5, above) and there is space between the shaft and the hook (Fig. 5 above), therefore the hook can be considered to be laterally spaced from the shaft.

With regards to Applicant's argument that the second hook of Jackson is not unitary with the shaft, the Examiner respectfully disagrees. With regard to the hook and the shaft, it is noted that Jackson device comprises several parts, e.g. the hooks and the shaft, which are rigidly secured together as a single unit by screws (Fig. 5 above, refs. 22 and 55). Therefore, the constituent parts are so combined as to constitute a unitary whole or structure. In re Larson, 144 USPQ 347 (CCPA 1965).

With regards to Applicant's argument that the device of Jackson does not disclose a plate, the Examiner respectfully disagrees. The shaft of Jackson can be considered to be a plate, since the portion near ref. 62 is flattened.

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With regards to Applicant's argument that the shaft is not curved, the Examiner respectfully disagrees. The shaft is rounded (Fig. 5 above), and is therefore curved.

With regards to Applicant's argument that the threaded aperture does not go through the shaft, the Examiner respectfully disagrees. As can be seen in Fig. 5, above (top), in that interpretation of the Jackson reference the portion near ref. 71 can be considered to be part of the shaft, and therefore the aperture extends through a portion of the shaft.

With regards to Applicant's argument that the stud is not received in an aperture, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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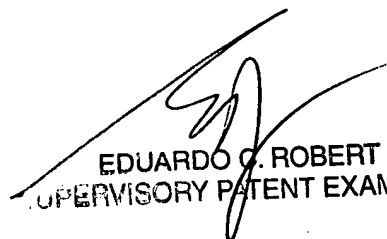
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Cumberledge whose telephone number is (571) 272-2289. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLC



EDUARDO C. ROBERT
SUPERVISORY PATENT EXAMINER